



**BORSA
İSTANBUL**

REGION: Turkey

INDUSTRY: Financial Services

SOLUTION: Workload Automation
& Application Release
Automation

Streamlining Processes Through Automation Proves Profitable Investment for Borsa Istanbul

- Complex Start of Day and End of Day processes now run over 50% faster in the Derivatives Markets
- Increased productivity with savings of 200+ man hours each month in the Derivatives Markets
- Almost 90% reduction in staff time by automating IT system tasks

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Let's Automate Business.

Borsa Istanbul (BIST), formed by the merger of Istanbul Stock Exchange, TurkDex and the Istanbul Gold Exchange, is the sole exchange entity in Turkey. The new organization brought together all the securities exchanges operating in the Turkish capital markets under one roof. BIST operates five markets – Equities, Debt Securities, Derivatives Markets, Precious Metals and Diamonds. BIST’s IT Systems provide an integrated trading environment to BIST members delivering the trading services to the clients. In the Derivatives Markets, BIST processes more than 40,000 trades every day representing a typical trading value of approximately \$1.1 billion.

Hands On Connections

The BIST IT operations team, responsible for the Derivatives Markets (DM), needed to be aligned with the business and development teams in order to achieve organizational goals and meet C-level objectives and reporting requirements. DM application processing was spread across a heterogeneous IT infrastructure consisting of multiple operating systems (Linux, Windows, HP-UX, VMware) and databases (Oracle, Informix). Both the IT and business teams needed to change old habits to move on from heavily manually dependent applications and embrace the concept of automation.

DM Start of Day, Data Dissemination, Start/Stop and End-of-Day are crucial processes that the BIST IT operation team needs to get right every day. Each process involves complex sequencing of a

set of activities that must complete in the correct order. Start of Day consists of nearly 120 steps with numerous interdependencies requiring extensive user interaction. End-of-Day shutdown initiates process flows that reconcile the day’s activity and communicates detailed close-of-business market information to data organizations such as Reuters and Bloomberg. As part of running End-of-Day, BIST business analysts would need to be contacted by phone at several points to confirm that processing could proceed.

“Since Operators couldn’t determine how long jobs would take, they were tied up for long periods of time watching and waiting for tasks to complete,” said Ümit Şeremet, System Engineer and Project Manager, Borsa Istanbul. “It was not possible to see whole process in one monitor. In addition, reporting was a real problem. We had to manually create, manage and deliver custom reports to get executives the information they needed.”

Automation and Collaboration Provided the Solution

BIST identified that an automation solution could reduce DM runtimes and minimize the impact of errors on their production services. Automation would simplify the managing and monitoring of their applications and infrastructure systems providing end-to-end visibility of DM activity. When issues occurred, receiving immediate notifications with clear, concise diagnostic information would reduce

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System Engineer and Project Manager, Borsa Istanbul

problem resolution times. Better definition and documentation of workflows would expand the organization's knowledge base and eliminate the reliance on a few individuals to manage their business processes.

In addition to automating tasks related to their core business applications, BIST also sought a solution that could be applied at the infrastructure level – automating server and application provisioning, synchronizing backups across disparate platforms, automating some manual system administration tasks and deploying virtual server in their virtualized environment. After evaluating a number of providers, BIST selected Automic's ONE Automation solution because of its ease of use, rapid implementation, and ability to meet all of their established requirements.

Implementing ONE Automation has allowed BIST to eliminate most of manual confirmations from its DM processing. ONE Automation has also provided BIST with visibility across all enterprise IT workload through one central point of control, enabling BIST's business and IT operations teams to work together towards the common goal of developing automated, controlled process flows. BIST plans to use ONE Automation's managed file transfer feature to streamline data dissemination processes and ensure external agencies receive vital up-to-date market information throughout the day as well as at close of business.

BIST has automated the release of new applications and updates from development through to production deployments with ONE Automation orchestrating Puppet, SVN and other DevOps tools to create a seamless release management process. IT Operations is also able to dynamically create and delete virtual server resources based on real-time, operational capacity demands.

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Predictive monitoring provides BIST with improved

forecasting when planning elapsed time for its process flows. Separating scripts into more granular job steps combined with step-level restarting of failed workload has reduced recovery times. More meaningful error messages and automated SMS/email notifications means problems get resolved sooner.

Automation Pays Big Dividends

ONE Automation has enabled BIST to realize the following significant benefits:

- Start of Day processing time reduced by 73% in DM
- End of Day shutdown time reduced by 51% in DM
- Increased productivity with savings of 200+ man hours each month in DM
- Nearly 90% reduction in staff time by automating IT system tasks in some manual system administration tasks.

BIST intends to build on the success it has achieved with ONE Automation in the Derivatives Markets by automating processes that handle other markets. BIST also plans to automate processing required to support new initiatives by the Nasdaq OMX partnership BIST has entered.

“We have realized many quantitative and qualitative gains with ONE Automation at Borsa Istanbul,” said Şeremet. “This has led to an automation culture developing within our IT department. Moving forward, we are now looking at every process to see where we can automate.”





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Automic is the world's most comprehensive platform for automating businesses. Founded in 1985, Automic pioneered the largest, independent, globally deployed automation platform which powers enterprise, application and infrastructure processes. Now, as the consumerization of IT accelerates, Automic is reimagining how organizations integrate next generation service models such as Cloud, DevOps and Big Data. By challenging conventional thinking, Automic enables its customers to be faster, smarter, and in control. Automic – the standard in business automation.

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